

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims

1. (Currently Amended) A method for selecting access points for a communication device, said method comprising:
 - determining a position of the communication device;
 - determining available access points, each of said access points having a cost associated with use of the access point;
 - obtaining capabilities information related to the available access points;
 - determining combined requirements of the communication device, *said combined requirements including:*
 - a profile of operating capabilities of the communication device;
 - ~~quality of service requirements and connection transport requirements of a service and application requested by the communication device;~~
 - connection transport requirements of an application requested by the communication device; and
 - user preferences regarding a desired access point, said user preferences including cost, speed, quality, and security associated with the desired access point;
 - mapping the capabilities information related to the available access points with the position and the combined requirements of the communication device to obtain mapped information; and
 - selecting an access point based upon low cost and capabilities meeting the combined requirements of the communication device according to the obtained mapped information.

2. (Previously Presented) The method of claim 1, wherein the mapping step comprises the steps of:

determining a geographical position of the available access points relative to the position of the communication device; and

determining a spatial relation between an antenna of the communication device and the available access points, wherein the information related to available access points includes information related to the position and the spatial relation between the available access points and the antenna of the communication device.

3. (Original) The method of claim 2, wherein the mapping is performed in the communication device.

4. (Original) The method of claim 2, wherein the communication device is located within a personal area network, and wherein the mapping is performed by a second device within the personal area network.

5. (Original) The method of claim 2, wherein the mapping is performed by a node in an access network.

6. (Original) The method of claim 3, wherein a node in an access system provides the information related to the position and the spatial relation between the access points and the communication device.

7. (Original) The method of claim 4, wherein a node in an access system provides the information related to the position and the spatial relation between the access points and the communication device.

8. (Original) The method of claim 6, wherein the node is common to at least two access networks within a network system.

9. (Original) The method of claim 7, wherein the node is common to at least two access networks within a network system.

10. (Previously Presented) The method of claim 1, wherein the selecting step is performed with user interaction.

11-12. (Canceled)

13. (Currently Amended) The method of ~~claim 11~~ claim 1, further comprising the steps of:

- determining capabilities of at least one access network within a network system;
- comparing the combined requirements of the communication device with the capabilities of the access network;

- selecting those requirements which are common to both the capabilities of the access network and the combined requirements of the communication device;

- determining mismatched requirements between the capabilities of the access network and the combined requirements; and

- if mismatched requirements between the capabilities of the access network and the combined requirements are determined, performing the step of determining a compromise between the mismatched requirements.

14. (Currently Amended) The method of ~~claim 11~~ claim 1, wherein the combined requirements for the communication device are further based upon user preferences associated with a second communication device within a personal area network.

15. (Currently Amended) The method of ~~claim 11~~ claim 1, wherein the user preferences are selected from the group consisting of:

- security services provided by an access point and trust between the communication device and the access point.

16. (Currently Amended) The method of ~~claim 11~~ claim 1, wherein the user preferences are stored in the communication device.

17. (Currently Amended) The method of ~~claim 11~~ claim 1, wherein the user preferences are stored in a second device within a personal area network.

18. (Currently Amended) The method of ~~claim 11~~ claim 1, wherein the user preferences are stored in a communication system and the system selectively provides the communication device with information related to access points.

19. (Previously Presented) The method of claim 1, wherein the selecting step is performed without user interaction.

20. (Previously Presented) The method of claim 1, further comprising the steps of:

receiving, by a second communication device within a personal area network, the position and combined requirements of the communication device;

providing, by the second communication device, the position and combined requirements to a network; and

receiving, by the second communication device from the network, capabilities and cost information related to access points, wherein the second communication device provides the communication device with the capabilities and cost information related to access points.

21. (Original) The method of claim 1, wherein the determined position is not the current geographical position of the communication device.

22. (Original) The method of claim 2, wherein the determined spatial relation between an antenna of the communication device and the access points is an intermediate position within communication range of at least two of the access points.

23. (Original) The method of claim 22, wherein the intermediate position within communication range of the at least two access points is an optimal position based on the combined requirements.

24. (Original) The method of claim 1, wherein the determined position is a predetermined position of the communication device and the determined position is not related to the current position of the communication device.

25. (Previously Presented) The method of claim 1, wherein the step of determining combined requirements of the communication device includes determining an environment of the communication device, wherein the mapping step includes considering the environment of the communication device to obtain the mapped information.

26. (Previously Presented) The method of claim 25, wherein the mapping step includes recommending an access point.

27. (Original) The method of claim 26, wherein the recommendation is presented to a user.

28. (Original) The method of claim 26, wherein the recommendation is presented to a central intelligence.

29. (Original) The method of claim 1, wherein the information related to access points includes recommendations related to the access points.

30. (Original) The method of claim 29, wherein the recommendations include directions for locating at least one access point.

31. (Original) The method of claim 30, wherein the directions include information related to distance or spatial position between the communication device and at least one access point.

32. (Original) The method of claim 1, wherein the mapped information is a subset of the determined available access points, and wherein the selection of at least one access point is not a point in the subset.

33. (Currently Amended) A system for selecting access points for a communication device, comprising:

a communication device adapted to selectively communicate using a first or second access technology; and

a network including a node, wherein the node receives a position and combined requirements of the communication device, said combined requirements including:

a profile of operating capabilities of the communication device;

quality of service requirements ~~and connection transport requirements~~ of a service ~~and application~~ requested by the communication device; and

connection transport requirements of an application requested by the communication device; and

user preferences regarding a desired access point, said user preferences including cost, speed, quality, and security associated with the desired access point;

wherein the node determines access points that are available to serve the position of the communication device while satisfying the combined requirements of the communication device, and provides the communication device with capabilities and cost information related to the determined access points for networks which use the first or second access technology.

34. (Original) The system of claim 33, wherein the node is a second communication device and the network is a personal area network including the communication device.

35. (Original) The system of claim 33, wherein the first and the second access technologies are the same technologies.

36. (Original) The system of claim 33, wherein the node comprises:
means for determining a position of available access points relative to the position of the communication device; and

means for determining a spatial relation between an antenna of the communication device and an antenna of the access points, wherein the information related to access points includes information related to the position and the spatial relation between the antenna of the access points and the antenna of the communication device.

37. (Original) The system of claim 36, wherein the alignment of the antennas is made automatically without user interaction.

38-39. (Canceled)

40. (Currently Amended) The system of ~~claim 38~~ claim 33, further comprising:
means for determining the capabilities of the access points;
means for comparing the combined requirements of the communication device with the capabilities of the access points;

means for selecting those requirements which are common to both the capabilities of the access points and the combined requirements of the communication device; and

means for determining a compromise when there is a mismatch between the capabilities of the access points and the combined requirements of the communication device.

41. (Currently Amended) The system of ~~claim 38~~ claim 33, wherein the user preferences are selected from the group consisting of:

security services provided by an access point and trust between the communication device and the access point.

42. (Currently Amended) The system of ~~claim 38~~ claim 33, wherein the user preferences are stored in the communication device.

43. (Currently Amended) The system of ~~claim 38~~ claim 33, wherein the user preferences are stored in a network system.

44. (Currently Amended) The system of ~~claim 38~~ claim 33, wherein the user preferences are stored in the node and the node selectively provides the communication device with information related to access points.

45. (Currently Amended) The system of ~~claim 38~~ claim 33, wherein the node is a second communication device and the preferences are stored in the second communication device which selectively provides the first communication device with information related to access points.

46. (Currently Amended) The system of ~~claim 38~~ claim 33, further comprising:
a second communication device which receives the position information and combined requirements of the communication device, provides the position information and requirements to the node, receives from the node information related to access points, and provides the communication device with the information related to access points.

47. (Original) The system of claim 36, wherein the determined position is not the current geographical position of the communication device.

48. (Original) The system of claim 36, wherein the determined position is a predetermined position of the communication device and the determined position is not related to the current position of the communication device.

49. (Original) The system of claim 36, wherein the determined position is a generalized geographical area.

50. (Original) The system of claim 33, wherein the information related to access points includes recommendations related to the access points.

51. (Original) The system of claim 50, wherein the recommendations include directions for locating at least one access point.

52. (Original) The system of claim 50, wherein the recommendations include directions to a geographical area which is an intermediate position within communication range of at least two access points, which are to be used simultaneously.

53. (Original) The system of claim 50, wherein the directions include information related to distance or spatial orientation between the communication device and at least one access point.

54. (Previously Presented) The system of claim 33, wherein the node also includes means for determining an environment of the communication device, wherein the node considers the determined environment of the communication device when determining available access points.

55. (Original) The system of claim 54, wherein the environment is a homogeneous transport environment.

56. (Original) The system of claim 54, wherein the environment is a heterogeneous transport environment.

57. (Original) The system of claim 33, wherein application data related to access technologies is split into separate parts, wherein each part is mapped onto different access techniques according to the combined requirements.